

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



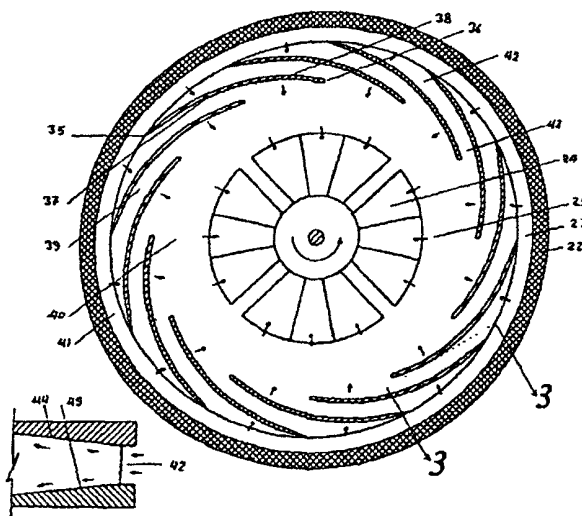
(43) International Publication Date
11 January 2001 (11.01.2001)

PCT

(10) International Publication Number
WO 01/02701 A1

- (51) International Patent Classification⁷: **F01D 1/06**
- (21) International Application Number: **PCT/US00/17044**
- (22) International Filing Date: **20 June 2000 (20.06.2000)**
- (25) Filing Language: **English**
- (26) Publication Language: **English**
- (30) Priority Data:
09/348,219 **6 July 1999 (06.07.1999)** **US**
- (71) Applicant (*for BB only*): **GIRGIS, Sami, E. [US/US];**
Apartment 4, 22-73 41st Street, Astoria, NY 11105 (US).
- (81) Designated States (*national*): **AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.**
- (84) Designated States (*regional*): **ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).**
- (71) Applicant and
(72) Inventor (*for all designated States except BB*): **AW-DALLA, Essam, T. [EG/EG];** 68 Suez Canal Road, Moharrem Bey, Alexandria (EG).
- Published:**
— *With international search report.*
- (74) Agents: **HANDLER, Edward, J. et al.;** Kenyon & Kenyon, One Broadway, New York, NY 10004 (US).
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: **ROTARY RAM FLUID PRESSURIZING MACHINE**



(57) Abstract: The present invention relates to rotary ram fluid pressurizing machines utilizing the phenomenon of ram pressure rise, which occurs when a fluid is rammed into a suitably shaped diffuser moving at a high speed to develop a pressure gradient between two points across a fluid stream. In an exemplary machine, vanes (30) attached to rotary disks (28, 29) form channels (39) which act as diffusers when the disks are rotated to move and pressurize fluid rapidly inwardly or radially outwardly. Various embodiments for pressurizing, pumping or evacuating compressible or incompressible fluids are disclosed.

WO 01/02701 A1